



A.D.M. COLLEGE FOR WOMEN

(Autonomous)

Affiliated to Bharathidasan University

(Nationally Accredited with "A" Grade by NAAC – 3rd Cycle)

NAGAPATTINAM 611 001.

PG & RESEARCH DEPARTMENT OF MATHEMATICS

Programme: B.Sc. Mathematics

PO No.	Programme Outcomes <i>Upon completion of the B.Sc. Degree Programme, the graduate will be able to</i>
PO 1:	Apply the basic concepts of mathematics to formulate and evaluate the real-world problems.
PO 2:	Utilize the mathematical principles to think analytically, systematically and critically while solving problems and making decisions.
PO 3:	Construct the logical arguments and apply the laws of logic in mathematical proofs.
PO 4:	Learn and apply the appropriate methods and procedures in Matlab, SPSS etc.
PO 5:	Pursue careers in academia, industry and the other areas of mathematics.

PSO No.	Programme Specific Outcomes <i>Upon completion of these courses the student would</i>
PSO 1:	Identify the applications of mathematics in other disciplines and society.
PSO 2:	Formulate and develop mathematical arguments in a logical manner.
PSO 3:	Able to identify, locate and solve the issue or problem effectively.
PSO 4:	Acquire good knowledge in advanced areas of mathematics.
PSO 5:	Understand and formulate quantitative models arising in social science, business and other contexts.

Course Title	CORE COURSE I : DIFFERENTIAL CALCULUS AND TRIGONOMETRY		
Code	MUA		
CO No.	Course Outcomes	PSOs Addressed	Cognitive Level
CO-1	Apply Leibnitz's Theorem for finding the n^{th} derivative of product of functions.	PSO2,3,4	U
CO-2	Evaluate envelopes and curvatures of plane curves.	PSO1,2,3,4	AP
CO-3	Compute maxima and minima of plane curves.	PSO1,2,3,4	U
CO-4	Interpret the relation between circular and hyperbolic functions	PSO1,2,3,4	U
CO-5	Find the sum of infinite series using appropriate methods	PSO1,2,3,4	U

Course Title	CORE COURSE II : CLASSICAL ALGEBRA		
Code	MUB		
CO No.	Course Outcomes	PSOs Addressed	Cognitive Level
CO-1	Understand the aspects of classical algebraic structures.	PSO2	U,KN
CO-2	Find the nature of the roots of the equations.	PSO3	KN,AN,E
CO-3	Solve and apply the inequalities.	PSO3	E,AN,AP
CO-4	Find the inverse and rank of the matrix.	PSO2,3	E,AP
CO-5	Calculate the Eigen values and vectors of a matrix and apply the C-H theorem for finding the inverse of a matrix.	PSO2,3,4	E,AP

Course Title	CORE COURSE III : INTEGRAL CALCULUS		
Code	MUC		
CO No.	Course Outcomes	PSOs Addressed	Cognitive Level
CO-1	Find the solutions of the integral.	PSO2,3	CN,E
CO-2	Solve the integration by parts.	PSO2,3	E
CO-3	Find the area of plane curves using Cartesian and polar coordinates	PSO2,3,1,5	KN,E
CO-4	Find the area by changing the given order of integration	PSO 2,3	U,KN,E
CO-5	Understand the concepts of Beta and Gamma functions	PSO 2,3	U,KN,E

Course Title	CORE COURSE IV: ANALYTICAL GEOMETRY OF THREE DIMENSIONS		
Code	MUD		
CO No.	Course Outcomes	PSOs Addressed	Cognitive Level
CO-1	Understand the three dimensional space, angle between lines and planes.	PSO1,3,4,5	U
CO-2	Find the coplanar lines, skew lines and to find shortest distance between them.	PSO1,3,4,5	AP
CO-3	Formulate the equation of sphere and their properties.	PSO1,3,4,5	AP
CO-4	Form the equation of cone with a conic as guiding curve and the tangent lines.	PSO1,3,4,5	AP
CO-5	Retrieve the equation of cylinder and right circular cylinder.	PSO1,3,4,5	AP

Course Title	CORE COURSE V DIFFERENTIAL EQUATIONS AND LAPLACE TRANSFORMS		
Code	MUE		
CO No.	Course Outcomes	PSOs Addressed	Cognitive Level
CO-1	Solve the higher order linear differential equations with constant coefficients.	PSO2,3,4	KN,EN
CO-2	Solve differential equations by using method of variation of parameters	PSO2,3,4	CN,EN
CO-3	Find solutions of first order partial differential equations of the standard forms	PSO3,5	KN,CN,EN
CO-4	Solve the PDE's using Charpit's method.	PSO1,3	U,KN,EN
CO-5	Apply the techniques of Laplace transform and inverse Laplace transform	PSO2,3,4	U,CN,KN,EN

Course Title	CORE COURSE VI VECTOR CALCULUS AND FOURIER SERIES		
Code	MUF		
CO No.	Course Outcomes	PSOs Addressed	Cognitive Level
CO-1	Explain the concepts of differentiation of vector field.	PSO1,3,4	U,C,KN
CO-2	Integrate the vector functions over curves and surfaces.	PSO1,2,3,4	U,E
CO-3	Compute integrals using Green's theorem, Stoke's theorem and the divergence theorem.	PSO1,2,3,4	U,E,AP
CO-4	Solve the wave equations, Laplace equations using Fourier series	PSO1,2,3,5	U,E,AP
CO-5	Derive the Fourier series to the periodic signals in half range.	PSO1,2,3,5	U,E,AP

Course Title	CORE COURSE VII SEQUENCES AND SERIES		
Code	MUG		
CO No.	Course Outcomes	PSOs Addressed	Cognitive Level
CO-1	Find the convergence of sequences	PSO4	U,E
CO-2	Evaluate the limits and describe the behavior of monotonic sequences	PSO1,2,3,4	U,E,CN
CO-3	Interpret the concepts of subsequences and Cauchy sequences.	PSO1,2,3,4	U,CN,KN
CO-4	Discuss the convergence or divergence of series using various tests	PSO1,2,3,5	U,AN
CO-5	Compute the absolute convergence of series.	PSO1,2,3,5	KN,E

Course Title	CORE COURSE VIII NUMBER THEORY		
Code	MUH		
CO No.	Course Outcomes	PSOs Addressed	Cognitive Level
CO-1	Find the divisor, sum and product of a given natural number	PSO2,3,4	CN,EN
CO-2	Gain the knowledge of number theoretic functions	PSO3,4	KN,AN
CO-3	Interpret the famous conjectures in number theory	PSO2,3,4	CN,AN
CO-4	Solve the system of linear congruences using the chinese remainder theorem.	PSO1,2,3,4	CN,EN
CO-5	Apply the law of quadratic reciprocity to classify numbers as quadratic residues and quadratic non-residues	PSO1,2,3,4	AN,AP, EN

Course Title	CORE COURSE IX ALGEBRA		
Code	MUI		
CO No.	Course Outcomes	PSOs Addressed	Cognitive Level
CO-1	Gain the knowledge of sets, mapping, relations, groups and subgroups.	PSO2,4,5	U,KN
CO-2	Interpret the notion of normal groups and isomorphism.	PSO2,4	U,C
CO-3	Analyze the concepts of homomorphism and isomorphism for rings and field.	PSO2,4	U,AN
CO-4	Recognize the facts of vector space and linear independence.	PSO1,2,3,4	U,C
CO-5	Calculate the basis, dimension, matrix of the linear transformation and inner product space	PSO2,4	U,E

Course Title	CORE COURSE X REAL ANALYSIS		
Code	MUJ		
CO No.	Course Outcomes	PSOs Addressed	Cognitive Level
CO-1	Apply the order completeness property.	PSO2,3,4	AN,KN
CO-2	Differentiate the continuity and discontinuity of functions.	PSO1,2,3,4,5	E,AN,AP
CO-3	Find the derivative of a given function.	PSO 1,3,4,5	E,AN,AP
CO-4	Demonstrate the mean value theorems.	PSO1,2,3,4	E,AN,AP,KN
CO-5	Interpret the integrability of functions	PSO1,3,4,5	E,AN,AP,KN,C

Course Title	CORE COURSE XI MECHANICS		
Code	MUK		
CO No.	Course Outcomes	PSOs Addressed	Cognitive Level
CO-1	Demonstrate the Equilibrium of a particle in static and dynamic.	PSO 3,5	UN,KN
CO-2	Understand the Hanging strings and suspension bridge.	PSO 1,2,3,4	KN, CN
CO-3	Acquire knowledge in the Impact of spheres and Impulsive forces.	PSO 3,4	KN, CN
CO-4	Interpret Central Orbit and Moment of Inertia.	PSO 2,3	CN,EN,AN
CO-5	Solve the practical problems of static and dynamic.	PSO 1,2,3,4	CN,AN

Course Title	CORE COURSE XII COMPLEX ANALYSIS		
Code	MUL		
CO No.	Course Outcomes	PSOs Addressed	Cognitive Level
CO-1	Understand the basic concepts of Cauchy-Riemann equations in Cartesian and polar coordinates.	PSO2,3,4	AN,E,KN,AP
CO-2	Interpret the analytic functions, harmonic functions, elementary and bilinear transformation concepts.	PSO2,3,4	AN,E,KN, AP
CO-3	Apply the theorems using complex integration.	PSO1,2,3,4,5	AP,AN,E
CO-4	Expand the Taylor's and Laurent's series of functions.	PSO1,2,3,4,5	AN,AP,E, KN
CO-5	Solve the definite integrals using the concepts of residues.	PSO1,2,3,4	E,AN,AP, KN

Course Title	CORE COURSE XIII NUMERICAL METHODS WITH C PROGRAMMING THEORY		
Code	MUM		
CO No.	Course Outcomes	PSOs Addressed	Cognitive Level
CO-1	Find the variables, constants, expressions and operators.	PSO2,4,5	U,KN
CO-2	Use functions and arrays.	PSO2	U,KN
CO-3	Write the programmes on arithmetic operations and recursion.	PSO2,5	U,AP,KN
CO-4	Evaluate the linear equations and matrices numerically.	PSO2	U,AP
CO-5	Solve simultaneous system of equations using numerical techniques.	PSO2	U,AP

Course Title	CORE COURSE XIV ASTRONOMY		
Code	MUO		
CO No.	Course Outcomes	PSOs Addressed	Cognitive Level
CO-1	Perform calculations on celestial bodies.	PSO1,3,4	U
CO-2	Compare our galaxy with other galaxies.	PSO1,3,4	U
CO-3	Apply the principles and fundamental techniques of the astronomy.	PSO1,5	AP
CO-4	Analyze the size, age structure and motion of the universe over all using cosmological models.	PSO1,3,4	AN
CO-5	Understand the phases of moon and occurrence of Eclipses.	PSO1,3,4	U

Course Title	MAJOR BASED ELECTIVE I OPERATION RESEARCH		
Code	MUE3		
CO No.	Course Outcomes	PSOs Addressed	Cognitive Level
CO-1	Analyze and solve linear programming models of real life situations	PSO2,3	CN,EN
CO-2	Understand the problem solving method of Simplex and Big M Method.	PSO2,3	EN
CO-3	Exhibit the applications of Transportation Problem.	PSO2,3,1,5	KN,EN
CO-4	Solve Assignment problems.	PSO2,3	U,KN,EN
CO-5	Use PERT and CPM techniques in solving Network Analysis problems	PSO2,3	U,KN,EN

Course Title	MAJOR BASED ELECTIVE II STOCHASTIC PROCESS		
Code	MUE4		
CO No.	Course Outcomes	PSOs Addressed	Cognitive Level
CO-1	Carry out derivations involving conditional probability distribution and conditional expectations.	PSO2	U,E
CO-2	Define basic concepts from the theory of Markov chains and present proofs for the most important theorems.	PSO1,2,3,4,5	C,E
CO-3	Identify classes of states in Markov chains and characterize the classes.	PSO1,2,3,5	KN,E,AP
CO-4	Interpret the renewal process and theory.	PSO2,3	KN,E
CO-5	understand of the theoretical background of Queuing System	PSO2,3	KN,E,AP

Course Title	MAJOR BASED ELECTIVE III GRAPH THEORY		
Code	MUE5		
CO No.	Course Outcomes	PSOs Addressed	Cognitive Level
CO-1	Understand the concepts of graphs upto isomorphism.	PSO 2	KN,AN
CO-2	Acquire the knowledge of degree sequences, connectedness and components of graphs.	PSO1	KN,AN
CO-3	Demonstrate the characterization of Eulerian, Hamiltonian and trees.	PSO4	AN,AP
CO-4	Interpret the planarity of graphs.	PSO4	AN,AP
CO-5	Identify the chromatic number, index and polynomial of a graph.	PSO1	AN,E



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PG & RESEARCH DEPARTMENT OF MATHEMATICS

Programme: M.Sc. Mathematics

PO No.	Programme Outcomes <i>Upon completion of the M.Sc., Degree Programme, the graduate will be able to</i>
PO 1:	To understand the fundamental axioms in mathematics and capable of developing ideas based on them.
PO 2:	To maintain and develop the problem-solving skills.
PO 3:	To use the mathematical ideas in modelling the real world problems.
PO 4:	To analyze mathematical reasoning.
PO 5:	To demonstrate and communicate the mathematical concepts clearly.
PO 6:	To perform research activities independently towards Ph.D Degree in Mathematics.

PSO No.	Programme Specific Outcomes <i>Upon completion of these courses the student would</i>
PSO 1:	Connect Mathematics to real life problems in their lives.
PSO 2:	Do intensive research in pure and applied Mathematics.
PSO 3:	Analyze problems of industry and Society.
PSO 4:	Model and provide solutions to scientific and real life situation.
PSO 5:	Prepare for a career in which critical thinking is a central feature.

Course Title	CORE COURSE I : ALGEBRA		
Code	PGMA		
CO No.	Course Outcomes	PSOs Addressed	Cognitive Level
CO-1	Understand Sylow's theorem and its applications.	PSO2	An
CO-2	Analyze the various types of polynomials.	PSO1	An
CO-3	Develop the knowledge about modules.	PSO2	Ap
CO-4	Evaluate the roots and characteristics of polynomials.	PSO1	An
CO-5	Apply finite fields in Galois Theory	PSO1 PSO2	An & Ap

Course Title	CORE COURSE II : REAL ANALYSIS		
Code	PGMB		
CO No.	Course Outcomes	PSOs Addressed	Cognitive Level
CO-1	Acquire the basic topological properties on metric spaces.	PSO1	U
CO-2	Interpret the continuity and discontinuity of functions.	PSO1	U
CO-3	Analyze the Riemann - Stieltjes integral and their properties.	PSO1	AN
CO-4	Develop the knowledge of sequence and series of functions.	PSO1	U
CO-5	Understand functions of several variables.	PSO1	AN

Course Title	CORE COURSE III : ORDINARY DIFFERENTIAL EQUATIONS		
Code	PGMC		
CO No.	Course Outcomes	PSOs Addressed	Cognitive Level
CO-1	Obtain the solutions of ordinary differential equations.	PSO1	U
CO-2	Evaluate the special functions.	PSO2	AP
CO-3	Analyze the behavior of the solutions of the ODE.	PSO1 PSO2	AP
CO-4	Discuss the properties of boundary value problems.	PSO1,2,4	AP
CO-5	Solve the system of nonlinear equations.	PSO1,4	AP

Course Title	CORE COURSE IV: ADVANCED GRAPH THEORY		
Code	PGMD		
CO No.	Course Outcomes	PSOs Addressed	Cognitive Level
CO-1	Analyze the automorphism and operations on graphs.	PSO1	U
CO-2	Discuss the characterization, centers and centroids of trees.	PSO1	U
CO-3	Find the independent sets and matchings of graphs, Eulerian and Hamiltonian graphs.	PSO1,2	U,AN
CO-4	Color the graphs and find the chromatic polynomial.	PSO1,4	AP
CO-5	Interpret the planar and non-planar graphs.	PSO1,2	AP

Course Title	ELECTIVE COURSE- I - ADVANCED NUMERICAL ANALYSIS		
Code	PGME1		
CO No.	Course Outcomes	PSOs Addressed	Cognitive Level
CO-1	Solve transcendental and polynomial equations	PSO1	U
CO-2	Determine the solution of linear equations.	PSO1	AP
CO-3	Evaluate the higher order interpolation.	PSO1,4	AP
CO-4	Estimate the numerical differentiation and integration.	PSO1	U
CO-5	Interpret the methods of solving integration numerically.	PSO1,3	AP

Course Title	CORE COURSE VII: PARTIAL DIFFERENTIAL EQUATIONS		
Code	PGMG		
CO No.	Course Outcomes	PSOs Addressed	Cognitive Level
CO-1	Classify the PDE.	PSO1	U
CO-2	Apply Charpit's and Jacobi's method for solving PDE.	PSO1	U
CO-3	Solve second order and higher order PDE.	PSO1	U
CO-4	Evaluate non Linear equations of the second order.	PSO1,4	AP
CO-5	Compute boundary value problems.	PSO1,3	AP

Course Title	CORE COURSE VIII: CLASSICAL DYNAMICS		
Code	PGMH		
CO No.	Course Outcomes	PSOs Addressed	Cognitive Level
CO-1	Analyze the mechanical system of particles.	PSO1	AN
CO-2	Solve the Lagrange's equations of motion for the set of generalized coordinates.	PSO1	U
CO-3	Apply Lagrange's equations on various functions.	PSO1	AP
CO-4	Interpret Hamilton's equations and its principles.	PSO2	U
CO-5	Retrieve Hamilton – Jacobi Equation.	PSO1	AP

Course Title	MAJOR BASED ELECTIVE COURSE II : FUZZY SETS AND ITS APPLICATIONS		
Code	PGME2		
CO No.	Course Outcomes	PSOs Addressed	Cognitive Level
CO-1	Discuss the properties and extension principles of fuzzy sets.	PSO 1,2,3,4,5	KN,CN
CO-2	Apply the mathematical operations on fuzzy sets.	PSO 1,3,4	KN,EN
CO-3	Construct the arithmetic operations on fuzzy numbers.	PSO 1,4	CN,EN
CO-4	Interpret the relations on fuzzy sets.	PSO 1,2,3,4	KN,AN
CO-5	Analyze fuzzy concepts in decision making problems.	PSO 2,3,4	AN,EN

Course Title	CORE COURSE XI : MEASURE AND INTEGRATION		
Code	PGMI		
CO No.	Course Outcomes	PSOs Addressed	Cognitive Level
CO-1	Find the Lebesgue measure of measurable sets.	PSO2,5	KN,CN
CO-2	Discuss the integration of non-negative functions.	PSO2,5	KN,CN,AN
CO-3	Analyze abstract measure spaces.	PSO2,4,5	CN,AN
CO-4	Demonstrate Hahn decomposition theorem and signed measure.	PSO2,5	CN,AN
CO-5	Compute product measure.	PSO2,5	KN,EN

Course Title	CORE COURSE X: TOPOLOGY		
Code	PGMJ		
CO No.	Course Outcomes	PSOs Addressed	Cognitive Level
CO-1	Analyze the fundamental concepts of general topology.	PSO1,2	U,KN,AN,AP
CO-2	Determine the types of topological spaces and their properties.	PSO2	U,KN,AN
CO-3	Discuss Uryzohn's lemma and the Tietze Extension Theorem.	PSO1,2,4	U,KN,AN,AP
CO-4	Demonstrate Tychonoff theorem.	PSO2,4	U,AN,AP,KN
CO-5	Compute the complete and compactness in metric spaces.	PSO 2,4	U,AN,AP,KN,E

Course Title	CORE COURSE XI: INTEGRAL EQUATIONS AND TRANSFORMS		
Code	PGMK		
CO No.	Course Outcomes	PSOs Addressed	Cognitive Level
CO-1	Solve the linear integral equations.	PSO1	E,AP
CO-2	Find the solutions of Volterra and Fredholm integral equations.	PSO1,2	C,E
CO-3	Demonstrate the variational problems on moving boundaries and fixed boundaries.	PSO3	KN,C
CO-4	Evaluate the Fourier transform , finite sine and cosine transforms.	PSO1,2,3	U,KN,AP
CO-5	Apply Fourier transform in initial and boundary value problems.	PSO1,2,3	U,KN,AP

Course Title	MAJOR BASED ELECTIVE III: MATHEMATICAL MODELLING		
Code	PGME3		
CO No.	Course Outcomes	PSOs Addressed	Cognitive Level
CO-1	Create models on linear growth and decay of any system.	PSO1,2,3,4	U,KN,AP
CO-2	Form mathematical modeling in epidemics in population.	PSO3,4	U,KN,E
CO-3	Design mathematical modeling in any type of motions.	PSO1,3,4	U,KN,C,AN
CO-4	Solve problems in dynamics and genetics using modeling.	PSO2,3	U,E
CO-5	Demonstrate various real life situations through graphs.	PSO1,3,4,5	U,CN,KN

Course Title	MAJOR BASED ELECTIVE IV: ADVANCED OPERATION RESEARCH		
Code	PGME4		
CO No.	Course Outcomes	PSOs Addressed	Cognitive Level
CO-1	Write the algorithms in integer programming problem.	PSO1,3	KN,C
CO-2	Apply the OR techniques in various models.	PSO1,4	CN,E
CO-3	Analyze the problems on decision theory and game theory.	PSO3,4	CN,AN
CO-4	Optimize solutions of inventory models.	PSO3,4	EN,AN,AP
CO-5	Interpret the concepts of non-linear programming problems.	PSO2	AN,AP

Course Title	CORE COURSE XII : FUNCTIONAL ANALYSIS		
Code	PGML		
CO No.	Course Outcomes	PSOs Addressed	Cognitive Level
CO-1	Discuss the concept of normed linear spaces, dual spaces, weak convergence.	PSO2,4	U,KN,AN
CO-2	Apply the idea of the Hahn Banach theorem and open mapping theorem.	PSO2,3,4	U,KN,AN,E
CO-3	Analyze linear operators on Hilbert space.	PSO2,3,4,5	U,KN,AN
CO-4	Evaluate orthonormal basis.	PSO2,4	E,AN
CO-5	Demonstrate the commutative Banach algebras.	PSO 1,2,3	U,AN,C

Course Title	CORE COURSE XIII : ADVANCED PROBABILITY THEORY		
Code	PGMM		
CO No.	Course Outcomes	PSOs Addressed	Cognitive Level
CO-1	Interpret the field and σ - fields	PSO1,3	U,CN
CO-2	Analyze the probability spaces.	PSO3	CN,AN
CO-3	Apply the concepts of random variables and distributions.	PSO2	U,KN,CN
CO-4	Describe the ideas of expectation and characteristic functions.	PSO4	U,KN,CN
CO-5	Demonstrate the convergence of random variables.	PSO1,2,3	KN,CN

Course Title	CORE COURSE XIV : FLUID DYNAMICS		
Code	PGMN		
CO No.	Course Outcomes	PSOs Addressed	Cognitive Level
CO-1	Discuss the behavior of fluids in motion.	PSO1,2	U,C,AN
CO-2	Demonstrate the changes in flow when sphere of cylinder is introduced.	PSO1,2,3	CN,AN
CO-3	Estimate the applications of two dimensional flow.	PSO3,4	CN,EN
CO-4	Apply the stress components on viscous flow.	PSO3,4	CN, E
CO-5	Solve problems in viscous flow and describe the energy dissipation.	PSO 2,4	EN,AP

Course Title	MAJOR BASED ELECTIVE COURSE V : DIFFERENTIAL GEOMETRY		
Code	PGME5		
CO No.	Course Outcomes	PSOs Addressed	Cognitive Level
CO-1	Discuss the concept of graphs and level sets-vector fields.	PSO1,2	U,KN,AN
CO-2	Analyze surfaces and vector field on surfaces.	PSO 2	U,KN,AN
CO-3	Apply the properties of geodesics.	PSO1,2	U.KN,AN
CO-4	Interpret the scope of develop tables, minimal and ruled surfaces.	PSO1,2	U,KN,E
CO-5	Compute the compactness and completeness of surfaces.	PSO1,.,2,5	U,KN,AN



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PG & RESEARCH DEPARTMENT OF MATHEMATICS

Programme: M.Phil. Mathematics

PO No.	Programme Outcomes <i>Upon completion of the M.Phil., Degree Programme, the graduate will be able to</i>
PO 1:	Mathematical Knowledge: Various branches of Mathematics are so selected and designed for M.Phil Mathematics course aiming at mathematical reasoning, sophistication in thing and acquaintance with enough number of subjects including application oriented ones to suit the present needs of various allied branches in Engineering and Science as well as provision of opportunities to pursue research in higher mathematics.
PO 2:	Problem Solving Skills: This programme also offers training in problem solving skills.
PO 3:	Analytical & Logical thinking: The student will be able to develop logical reasoning techniques and Techniques for analyzing the situation.
PO 4:	Learning Number theoretical concepts: Student will learn some important concepts in Number theory that are useful in Cryptography related to the advanced area of research namely Network security.
PO 5:	Understanding Ability: Student will develop ability for generation of mathematical model to a given real life situation as well as learning new areas of mathematics in future either for teaching or for research.

PSO No.	Programme Specific Outcomes <i>Upon completion of these courses the student would</i>
PSO 1:	Connect Mathematics to real life problems in their lives.
PSO 2:	Do intensive research in pure and applied Mathematics.
PSO 3:	Analyze problems of industry and Society.
PSO 4:	Model and provide solutions to scientific and real life situation.
PSO 5:	Prepare for a career in which critical thinking is a central feature.

Course Title	CORE COURSE I : ALGEBRA AND ANALYSIS		
Code	RMA		
CO No.	Course Outcomes	PSOs Addressed	Cognitive Level
CO-1	To get a strong background of graph theory concepts.	PSO2,5	U,KN,CN
CO-2	To apply principles and concepts of graph theory in practical situation.	PSO2	U,KN
CO-3	To know the definitions of standard terms in topology.	PSO4	U,CN
CO-4	To know a variety of examples and counter example.	PSO1,4	EN,AN
CO-5	To get a strong knowledge of solving a linear system.	PSO1,2,3	AN,AP

Course Title	CORE COURSE II : RESEARCH METHODOLOGY		
Code	RMB		
CO No.	Course Outcomes	PSOs Addressed	Cognitive Level
CO-1	To familiar with rings and fields and understand the structure theory of modules over a Euclidean domain along with its implications.	PSO2,5	U,CN,KN
CO-2	To know the various theorems and their mathematical concepts.	PSO1,2,5	KN,AN,AP
CO-3	To have a fundamental understanding of Fourier transforms	PSO1,2,3	KN,CN
CO-4	To investigate the concepts of transformations	PSO1,2	AN,AP
CO-5	To use Riemann mapping theorem in applications.	PSO3,4	U,KN,CN

Course Title	CORE COURSE III : TEACHING AND LEARNING SKILLS		
Code	RMC		
CO No.	Course Outcomes	PSOs Addressed	Cognitive Level
CO-1	To understand the operations and use of computers and common Accessories.	PSO1,3,4,5	U
CO-2	To develop skills of ICT and apply them in teaching learning context and Research.	PSO3,4,5	AP
CO-3	To appreciate the role of ICT in teaching, learning and Research.	PSO3,4,5	U
CO-4	To acquire the knowledge of Instructional Technology and its Applications.	PSO3,4,5	AP
CO-5	To develop different teaching skills for putting the content across to targeted.	PSO3,4,5	AN